Remote Sensing Environment

An Interdisciplinary Journal

VOLUME 53, NUMBER 1, JULY 1995

Contents

- Philippe Mayaux and Eric F. Lambin Estimation of Tropical Forest Area from Coarse Spatial Resolution Data: A Two-Step Correction Function for Proportional Errors Due to Spatial Aggregation 1 Mostafa A. Karam, Faouzi Amar, Adrian K. Fung, Eric Mougin, Armand Lopes, David M. Le Vine, and André Beaudoin A Microwave Polarimetric Scattering Model for Forest Canopies Based on **Vector Radiative Transfer Theory** 16 F. Askari, T. Donato, and W. C. Keller Airborne Scatterometer Detection of Winds and Sea Surface Roughness Changes across the **Gulf Stream Front** 31 Jean-Christophe Calvet, Jean-Pierre Wigneron, André Chanzy, and Driss Haboudane Retrieval of Surface Parameters from Microwave Radiometry over Open Canopies at High Frequencies 46
- M. Benallegue, O. Taconet, D. Vidal-Madjar, and N. Normand

 The Use of Radar Backscattering Signals for Measuring Soil Moisture and Surface Roughness 6

Remote Sensing Environment

An Interdisciplinary Journal

VOLUME 53, NUMBER 2, AUGUST 1995

Contents

Corrigendum

Foreword 69 Lênio S. Galvão, Ícaro Vitorello, and Waldir R. Paradella Spectroradiometric Discrimination of Laterites with Principal Components Analysis and Additive Modeling 70 P. An, C. F. Chung, and A. N. Rencz Digital Lithology Mapping from Airborne Geophysical and Remote Sensing Data in the Melville Peninsula, Northern Canada, Using a Neural Network Approach 76 Neven Kresic Remote Sensing of Tectonic Fabric Controlling Groundwater Flow in Dinaric Karst 85 Jerry C. Ritchie Airborne Laser Altimeter Measurements of Landscape Topography 91 Lawrence P. Orwig, Alan D. Aronoff, Paul M. Ibsen, Harold D. Maney, James D. O'Brien, and Hugh D. Holt, Jr. Wide-Area Terrain Surveying with Interferometric SAR 97 Jorge López-Blanco and Lourdes Villers-Ruiz Delineating Boundaries of Environmental Units for Land Management Using a Geomorphological Approach and GIS: A Study in Baja California, Mexico 109 Tobias Wever and Jochen Henkel **Evaluation of the AIRSAR System for Soil Moisture Analysis** 118 Sandra C. Feldman, Ramona E. Pelletier, Ed Walser, James C. Smoot, and Douglas Ahl A Prototype for Pipeline Routing Using Remotely Sensed Data and Geographic Information **System Analysis** 123

132

Remote Sensing Environment

An Interdisciplinary Journal

VOLUME 53, NUMBER 3, SEPTEMBER 1995

Contents

Steven A. Sader, Douglas Ahl, and Wen-Shu Liou Accuracy of Landsat-TM and GIS Rule-Based Methods for Forest Wetland Classification in Maine	133
G. Zibordi, M. Van Woert, G. P. Meloni, and I. Canossi Intercomparisons of Sea Ice Concentration from SSM/I and AVHRR Data of the Ross Sea	145
Stefano Salvi Analysis and Interpretation of Landsat Synthetic Stereo Pair for the Detection of Active Fault Zones in the Abruzzi Region (Central Italy)	153
J. L. Privette, C. Fowler, G. A. Wick, D. Baldwin, and W. J. Emery Effects of Orbital Drift on Advanced Very High Resolution Radiometer Products: Normalized Difference Vegetation Index and Sea Surface Temperature	164
C. W. Brown, W. E. Esaias, and A. M. Thompson Predicting Phytoplankton Composition from Space—Using the Ratio of Euphotic Depth to Mixed-Layer Depth: An Evaluation	172
Richard L. Miller and James F. Cruise Effects of Suspended Sediments on Coral Growth: Evidence from Remote Sensing and Hydrologic Modeling	177
R. Douglas Ramsey, Allan Falconer, and J. R. Jensen The Relationship between NOAA-AVHRR NDVI and Ecoregions in Utah	188

SHORT COMMUNICATION

Barbara J. Yoder and Rita E. Pettigrew-Crosby

(400-2500 nm) at Leaf and Canopy Scales

Xingzhong Huang and Ya-Qiu Jin	
A Simple Method To Estimate the Soil Wetness and Surface Roughness by Using Active/	
Passive Microwave Data	212

199

Predicting Nitrogen and Chlorophyll Content and Concentrations from Reflectance Spectra

Volume Contents